

Remarks/Arguments

Claims 1-11, 15-22 and 24 are pending in the Application. In the Office Action, the Examiner rejected claims 1-11, 15-22 and 24. All pending claims are reproduced below, including those that remain unchanged.

Claims 1, 2, 4, 6-11, 15, 17-20, 22 and 24 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kinzelman U.S. Patent No. 6,144,930.

Claims 3, 5, 16 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kinzelman U.S. Patent No. 6,144,930.

The Applicant respectfully traverses these rejections.

Kinzelman describes a system for testing a simulation of a computer system. If there is an error in the simulation, it can be found by the Kinzelman system. Kinzelman doesn't test the actual memory only a computer simulation with simulated memory.

Claim 1 reads as follows:

1. A method for detecting a defect in a computing system including one or more central processing units (CPUs) and a system memory configurable to de-allocate defective portions thereof, the method comprising:

loading a test program code into an area of the system memory to be tested, the test program code having a plurality of instructions configured to detect one or more defects in the system memory;

fetching an instruction of the test program code from the system memory;

executing the fetched instruction with a CPU; and

determining whether the executed instruction yields a test result in conformance with an expected result.

Kinzelman does not test system memory with instructions configured to "detect one or more defects in system memory". Kinzelman compares the results of simulation of a computer system with expected results. The defects found in Kinzelman are defects in the simulation not defects in the memory. For this reason, claims 1 and dependent claims 2-11 are believed to be allowable over the prior art.

Claims 15 reads as follows:

15. An apparatus for use by a computer user for detecting a defect in a computing system including one or more central processing units (CPUs) and a system memory configurable to de-allocate defective portions thereof, wherein at least one CPU includes a code cache and a data cache, the computing system configured to fetch an instruction of a test program code from the system memory for testing the one or more CPU and the system memory, the apparatus comprising:

means for detecting a first defect related to a first corrupted portion of the fetched instruction, where the first corrupt portion represents data; and

means for detecting a second defect related to a second corrupted portion of the fetched instruction, where the second corrupt portion represents code.

Claim 15 includes means for testing for data and code portions of a computer instructions.

Kinzelman does not concern corrupted instructions only simulation errors. For this reason, claims 15 and dependent claims 16-19 are believed to be allowable.

Claim 20 reads as follows:

20. A computer software product for detecting a defect in a computing system including one or more central processing units (CPUs) and a system memory configurable to de-allocate defective portions thereof, the computer software product includes a medium readable by a CPU, the medium having stored thereon:

a first sequence of instructions which, when executed by the CPU, causes the CPU to load a test program code into an area of the system memory; and

a second sequence of instructions which, when executed by the CPU, causes the CPU to indicate the presence of the defect related to a code portion of a fetched instruction of the test program code; and

a third sequence of instructions which, when executed by the CPU, causes the CPU to indicate the presence of the defect related to a data portion of the fetched instruction of the test program code.

Claim 20 includes checking for defects in code and data portions of fetched instructions.

Kinzelman does not concern defects in fetched instructions, only simulation errors. For that reason claim 20 and dependent claim 21 are believed to be allowable.

Claims 22 and 24 read as follows:

22. A computer-readable medium having stored thereon instructions which when executed by a CPU, cause the CPU to perform steps of:

loading a test program code into an area of a system memory, the test program code having a plurality of instructions configured to detect one or more defects in the system memory;

fetching an instruction of the test program code from the system memory;

executing the fetched instruction within a CPU; and

determining whether the executed instruction yields a test result in conformance with an expected result,

wherein a nonconforming test result indicates the presence of the defect in the system memory.

24. A method for performing ongoing testing to detect defects in a computer system including one or more central processing units (CPUs) and a system memory configurable to de-allocate defective portions thereof, the method comprising:

loading a test program code into an area of the system memory to be tested,
the test program code having a plurality of instructions configured to detect one or
more defects in the system memory; and
periodically, fetching an instruction of the test program code from the system
memory;
executing the fetched instruction with a CPU; and
responsive to the results of the execution of the test program code,
determining whether instructions can be executed from the section of memory.

Kinzelman does not check for defects in system memory only for defects in the simulation.

In light of the above, it is respectfully submitted that all of the claims now pending in the
subject patent application should be allowable, and a Notice of Allowance is requested. The
Examiner is respectfully requested to telephone the undersigned if he can assist in any way in
expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to
Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for
extension of time, which may be required.

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Respectfully submitted,
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